UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,087	12/02/2003	Young-Ky Kim	678-0245 CON	3399

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
	10/726,087	KIM ET AL.
Office Action Summary	Examiner	Art Unit	
	STEVEN LIM	2617	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>22 November 2010</u>.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>31-49</u> is/are pending in the application.
　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>31-37,39-46,48 and 49</u> is/are rejected.
7)☒ Claim(s) <u>38 and 47</u> is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
　　a)☐ All　b)☐ Some * c)☐ None of:
　　　　1.☐ Certified copies of the priority documents have been received.
　　　　2.☐ Certified copies of the priority documents have been received in Application No. _____.
　　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)
1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
　　Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

U.S. Patent and Trademark Office
PTOL-326 (Rev. 08-06)　　　　　　　　　　Office Action Summary　　　　　　　Part of Paper No./Mail Date 20110313

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/22/2010 has been entered.

Claim Objections

Claim 34 is objected to because of the following informalities: The second line of the claim includes the underlined part "that is" however the claim is new and therefore the limitation of "that is" is considered to be part of the new claim and not amended. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

art to which it pertains, or with which it is most nearly connected, to make and use the same and shall
set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 31 and 41 are rejected under 35 U.S.C. 112, first paragraph, as failing to

comply with the written description requirement. The claim(s) contains subject matter

which was not described in the specification in such a way as to reasonably convey to

one skilled in the relevant art that the inventor(s), at the time the application was filed,

had possession of the claimed invention.

Regarding Claim 31, the limitation of "either coincident with a second data frame

or during transmission of the second data frame" is not disclosed in the specification

and therefore for purposes of examination the claim limitation is interpreted to be a

controller for receiving a first data frame and a second data frame.

Regarding Claim 41, the limitation of "wherein the first data frame is received

coincident with a second data frame or during transmission of the second data frame" is

not disclosed in the specification and therefore for purposes of examination the claim

limitation is interpreted to be receiving a first data frame and a second data frame.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly
claiming the subject matter which the applicant regards as his invention.

Claim 34 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite

for failing to particularly point out and distinctly claim the subject matter which applicant

regards as the invention.

Claim 34 recites the limitation "a second data frame generator" in the 2nd line of

the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 31, 40, 41, 49 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Gallagher et al (US 5619497) in view of Pyhalammi et al. (US 5671224).

Regarding Claims 31 and 41, Gallagher et al. discloses a transmission device for

a wireless communication system, comprising: a controller (receiver circuit, items 314,

Fig. 13) for receiving a first data frame, and a second data frame, to be transmitted

(frames are received simultaneously and then transmitted to the frame prioritization

circuit, Col. 2, Lines 31-Col. 3, Line 29, Col. 18, Lines 11-57); and a multiplexer (frame

prioritization circuit includes a multiplexer, Col. 18, Lines 58-62) for starting or resuming

transmission of the one of the first data frame and the second data frame after

transmission of the one of the first data frame and the second data frame (multiple frames are prioritized and then transmitted to the frame handler dependent on priority, Col. 18, Lines 58- Col. 19, Lines 6), however Gallagher et al. fails to disclose preempting transmission of one of the first data frame and the second data frame having a longest duration, in order to first transmit one of the first data frame and the second data frame having a shortest duration.

In an analogous art, Pyhalammi et al. discloses preempting transmission of one of the first data frame and the second data frame having a longest duration, in order to first transmit one of the first data frame and the second data frame having a shortest duration (short frames are prioritized for transmission over longer frames, Col. 4, Line 63- Col. 5, Line 65), which enables a reduction in the delay of frames (Col. 5, lines 53- 65).

It would have been obvious to one skilled in the art to preempt transmission of longer frames to transmit shorter frames first in order to reduce the delay in transmission of frames (Pyhalammi et al., Col. 5, Lines 53-65).

Regarding Claim 40, Gallagher further discloses receiving multiple data frames (multiple frames are received simultaneously and then transmitted to the frame prioritization circuit, Col. 2, Lines 31-Col. 3, Line 29, Col. 18, Lines 11-57), and the first data frame and the second data frame are control data frames (frames can be defined as control frames, Col. 6, Lines 29-35).

Regarding Claim 49, Gallagher further discloses receiving multiple data frames (multiple frames are received simultaneously and then transmitted to the frame

prioritization circuit, Col. 2, Lines 31-Col. 3, Line 29, Col. 18, Lines 11-57), and the first data frame and the second data frame are control data frames (frames can be defined as control frames, Col. 6, Lines 29-35).

Claim 32 and 42 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gallagher et al (US 5619497) in view of Pyhalammi et al. (US 5671224) as applied to claims 31 and 41 above, and further in view of Adachi (US 5850393).

Regarding Claim 32, Gallagher et al. discloses frame prioritization (multiple frames are prioritized and then transmitted to the frame handler dependent on priority, Col. 18, Lines 58- Col. 19, Lines 6) however Gallagher et al. fails to disclose a power controller for increasing a transmission power of the one of the first data frame and the second data frame having the longest duration, to be higher than that of the one of the first data frame and the second data frame having the shortest duration.

In an analogous art, Adachi discloses a power controller (Col. 5, Lines 5-11) for increasing a transmission power of the one of the first data frame and the second data frame having the longest duration, to be higher than that of the one of the first data frame and the second data frame having the shortest duration (based on data length thus frame length the power is adjusted for each frame thus increasing or decreasing based on length, Col. 5, Lines 5-11), which enables standard processing because the transmitted power is dependent on the frame length.

It would have been obvious to one having ordinary skill in the art at the time of invention was made to include a power controller that increases power for the larger

frame in order to process the frame using standard practices because the transmission power is dependent and calculated using the frame length.

Regarding Claim 42, Gallagher et al. discloses frame prioritization (multiple frames are prioritized and then transmitted to the frame handler dependent on priority, Col. 18, Lines 58- Col. 19, Lines 6) however Gallagher et al. fails to disclose increasing a transmission power of the one of the first data frame and the second data frame having the longest duration, to be higher than that of the one of the first data frame and the second data frame having the shortest duration.

In an analogous art, Adachi discloses increasing a transmission power of the one of the first data frame and the second data frame having the longest duration, to be higher than that of the one of the first data frame and the second data frame having the shortest duration (based on data length thus frame length the power is adjusted for each frame thus increasing or decreasing based on length, Col. 5, Lines 5-11), which enables standard processing because the transmitted power is dependent on the frame length.

It would have been obvious to one having ordinary skill in the art at the time of invention was made to increase power for the larger frame in order to process the frame using standard practices because the transmission power is dependent and calculated using the frame length.

Claims 33 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gallagher et al (US 5619497) in view of Pyhalammi et al. (US 5671224) as applied to claims 31 and 41 above, and further in view of Malkamaki et al. (US 5563895).

Regarding Claim 33, Gallagher et al. further discloses a first frame message and second frame message having a length (frames have a length and are received simultaneously and then transmitted to the frame prioritization circuit, Col. 2, Lines 31-Col. 3, Line 29, Col. 18, Lines 11-57); however Gallagher et al. fails to disclose the first frame message has a frame length of 5ms and the second frame message has a frame length of 20ms.

In an analogous art, Malkamaki et al. discloses frames of 5ms and 20ms length (Col. 6, Lines 40-45), which enables the standard frame length of a TDMA based system.

It would have been obvious to one having ordinary skill in the art at the time of invention was made to use a 5ms and 20ms length for the frame messages in order to comply with communication protocols which implement a 5ms control message and 20ms user information message such as TDMA as disclosed by Malkamaki et al. (Col. 6, Lines 40-45).

Regarding Claim 43, Gallagher et al. further discloses a first frame message and second frame message having a length (frames have a length and are received simultaneously and then transmitted to the frame prioritization circuit, Col. 2, Lines 31-Col. 3, Line 29, Col. 18, Lines 11-57); however Gallagher et al. fails to disclose the first

frame message has a frame length of 5ms and the second frame message has a frame length of 20ms.

In an analogous art, Malkamaki et al. discloses frames of 5ms and 20ms length (Col. 6, Lines 40-45), which enables the standard frame length of a TDMA based system.

It would have been obvious to one having ordinary skill in the art at the time of invention was made to use a 5ms and 20ms length for the frame messages in order to comply with communication protocols which implement a 5ms control message and 20ms user information message such as TDMA as disclosed by Malkamaki et al. (Col. 6, Lines 40-45).

Claims 34 and 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gallagher et al (US 5619497) in view of Pyhalammi et al. (US 5671224) as applied to claims 31 and 41 above, and further in view of Procter et al. (US 5440542).

Regarding Claim 34, Gallagher discloses receiving two frames (frames have a length and are received simultaneously and then transmitted to the frame prioritization circuit, Col. 2, Lines 31-Col. 3, Line 29, Col. 18, Lines 11-57), however Gallagher et al. fails to disclose a second data frame generator for encoding second input data of a second bit stream that is longer than a first bit stream to generate the second data frame.

In an analogous art, Procter et al. discloses a message generator for encoding second input data of a second bit stream that is longer than the first bit stream to

generate a second frame message having a second frame length longer than the first

frame length (data in the form of user information is sent using IWF from PSTN to

XCDR where the user information consists of multiple frames, Col. 4, Lines 11-47, fig.

2A, Items 20-23 and fig. 2B, Items 19-20 and 23-25, Frames A-F), which enables data

to be passed to the transmission circuitry from upper layer applications.

It would have been obvious to one having ordinary skill in the art at the time of

invention was made to include a message generator in order to allow application data to

be passed from upper layers and to be inserted into frames for proper transmission.

Regarding Claim 44, Gallagher discloses receiving two frames (frames have a

length and are received simultaneously and then transmitted to the frame prioritization

circuit, Col. 2, Lines 31-Col. 3, Line 29, Col. 18, Lines 11-57), however Gallagher et al.

fails to disclose encoding second input data of a second bit stream that is longer than a

first bit stream to generate the second data frame.

In an analogous art, Procter et al. discloses encoding second input data of a

second bit stream that is longer than the first bit stream to generate a second frame

message having a second frame length longer than the first frame length (data in the

form of user information is sent using IWF from PSTN to XCDR where the user

information consists of multiple frames, Col. 4, Lines 11-47, fig. 2A, Items 20-23 and fig.

2B, Items 19-20 and 23-25, Frames A-F), which enables data to be passed to the

transmission circuitry from upper layer applications.

It would have been obvious to one having ordinary skill in the art at the time of

invention was made to encode data in order to allow application data to be passed from

upper layers and to be inserted into frames for proper transmission.

Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Gallagher et al (US 5619497) in view of Pyhalammi et al. (US 5671224) and Procter et

al. (US 5440542) as applied to claim 34 above, and further in view of Odenwalder et al.

(US 5909434).

Regarding Claim 35, Gallagher discloses receiving two frames (frames have a

length and are received simultaneously and then transmitted to the frame prioritization

circuit, Col. 2, Lines 31-Col. 3, Line 29, Col. 18, Lines 11-57), however Gallagher et al.

fails to disclose the second data frame generator comprises: a Cyclic Redundancy

Check (CRC) generator for generating CRC bits according to the second input data of a

second frame length; a tail bit generator for generating tail bits and adding the

generated tail bits to an output of the CRC generator; a channel encoder for encoding a

tail bit-added second frame data at a predefined coding rate; and an interleaver for

interleaving the encoded data frame by the second frame length.

In an analogous art, Odenwalder et al. discloses a second frame generator

comprises a CRC generator for generating CRC bits according to the second input data

of the second frame length (Col.3, Lines 31-34, Fig. 2, Item 32), a tail bit generator for

generating tail bits and adding the generated tail bits to an output of the CRC generator

(Col. 3, Lines 33-39, Fig. 2, Item 34), a channel encoder for encoding the tail bit added

second frame data at a predefined coding rate (Col. 3, Lines 42-52, Fig. 2, Item 36), and

an interleaver for interleaving the encoded frame message by the second frame length

(Col. 3, Lines 59-62, Fig. 2, Item 42), which enables error correction.

It would have been obvious to one having ordinary skill in the art at the time of

invention was made to include a CRC generator, tail bit generator, channel encoder,

and interleaver in order to allow the receiver to check for errors in receiving the data.

Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Gallagher et al (US 5619497) in view of Pyhalammi et al. (US 5671224) as applied to

claim 31 above, and further in view of Nagatani et al. (US 6097714).

Regarding Claim 36, Gallagher discloses receiving two frames (frames have a

length and are received simultaneously and then transmitted to the frame prioritization

circuit, Col. 2, Lines 31-Col. 3, Line 29, Col. 18, Lines 11-57), however Gallagher et al.

fails to disclose a spreader for spreading an output of the multiplexer.

In an analogous art, Nagatani et al. discloses a spreader for spreading an output

of the multiplexer (spreading circuit spreads output of serial to parallel converter, Fig.

23, Items 22 and 23, Col. 3, Line 46 – Col. 4, Line 8), which enables introduction of a pn

code.

It would have been obvious to one having ordinary skill in the art at the time of

invention was made to include a spreader at the output of the multiplexer in order to

allow for the introduction of pn codes and short codes which are standard in a spread

spectrum communication system.

Claims 37 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Gallagher et al (US 5619497) in view of Pyhalammi et al. (US 5671224) and

Nagatani et al. (US 6097714) as applied to claim 36 above, and further in view of

Odenwalder et al. (US 5909434).

Regarding Claim 37, Gallagher discloses receiving two frames (frames have a

length and are received simultaneously and then transmitted to the frame prioritization

circuit, Col. 2, Lines 31-Col. 3, Line 29, Col. 18, Lines 11-57), however Gallagher et al.

fails to disclose the interleaver uniformly distributing symbols generated by encoding

one data bit over the respective durations of the whole frame.

In an analogous art, Odenwalder et al. discloses the interleaver uniformly

distributing symbols generated by encoding one data bit over the respective durations of

the whole frame (Col. 3, Lines 59-62), which enables error correction.

It would have been obvious to one having ordinary skill in the art at the time of

invention was made to uniformly distribute symbols by encoding one data bit over the

respective durations of the whole frame in order to use the correct number of symbols

as is standard practice in telecommunication protocols.

Regarding Claim 39, Gallagher discloses receiving two frames (frames have a

length and are received simultaneously and then transmitted to the frame prioritization

circuit, Col. 2, Lines 31-Col. 3, Line 29, Col. 18, Lines 11-57), however Gallagher et al.

fails to disclose the spreader comprises: an orthogonal code spreader for spreading the

one of the first data frame and the second data frame having the shortest duration

output from the multiplexer with an orthogonal code for a dedicated control channel; and

a Pseudo-random Noise (PN) spreader for spreading an output of the orthogonal code

spreader with a PN sequence.

In an analogous art, Pyhalammi et al. discloses short and long frames (short

frames are prioritized for transmission over longer frames, Col. 4, Line 63- Col. 5, Line

65), which enables message size to be adaptive and to reduce bandwidth waste.

In an analogous art, Nagatani et al. discloses a spreader comprising: an

orthogonal code spreader for spreading the frame message output from the multiplexer

with an orthogonal code for a dedicated control channel; and a pseudo-random noise

(PN) spreader for spreading an output of the orthogonal code spreader with a PN

sequence, (Fig. 23, Items 23, 23a and 23b, Col. 4, Lines 14-26), which enables

standard modulation techniques in a spread spectrum communication system.

It would have been obvious to one having ordinary skill in the art at the time of

invention was made to use short and long frames in order to allow data to be placed in a

frame that is size appropriate thus allowing for the system to reduce waste in

bandwidth.

It would also have been obvious to one having ordinary skill in the art at the time

of invention was made to use PN code and orthogonal code in order to utilize standard

modulation techniques in a spread spectrum communication system.

Claims 45, and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Gallagher et al (US 5619497) in view of Pyhalammi et al. (US 5671224) and

Procter et al. (US 5440542) as applied to claim 44 above, and further in view of

Odenwalder et al. (US 5909434).

Regarding Claims 45 and 46, Gallagher discloses receiving two frames (frames

have a length and are received simultaneously and then transmitted to the frame

prioritization circuit, Col. 2, Lines 31-Col. 3, Line 29, Col. 18, Lines 11-57), however

Gallagher et al. fails to disclose the second data frame generation step comprises:

generating CRC bits according to the second input data of a second frame length;

generating tail bits and adding the generated tail bits to an output of the CRC generator;

encoding a tail bit-added second frame data at a predefined coding rate; and

interleaving the encoded data frame by the second frame length, the interleaver

uniformly distributing symbols generated by encoding one data bit over the respective

durations of the whole frame.

In an analogous art, Odenwalder et al. discloses a second frame generator

comprises a CRC generator for generating CRC bits according to the second input data

of the second frame length (Col.3, Lines 31-34, Fig. 2, Item 32), a tail bit generator for

generating tail bits and adding the generated tail bits to an output of the CRC generator

(Col. 3, Lines 33-39, Fig. 2, Item 34), a channel encoder for encoding the tail bit added

second frame data at a predefined coding rate (Col. 3, Lines 42-52, Fig. 2, Item 36), and

an interleaver for interleaving the encoded frame message by the second frame length

(Col. 3, Lines 59-62, Fig. 2, Item 42), the interleaver uniformly distributing symbols

generated by encoding one data bit over the respective durations of the whole frame

(Col. 3, Lines 59-62), which enables error correction.

It would have been obvious to one having ordinary skill in the art at the time of invention was made to include a CRC generator, tail bit generator, channel encoder, and interleaver in order to allow the receiver to check for errors in receiving the data.

Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gallagher et al (US 5619497) in view of Pyhalammi et al. (US 5671224) as applied to claim 41 above, and further in view of Nagatani et al. (US 6097714).

Regarding Claim 48, Gallagher discloses receiving two frames (frames have a length and are received simultaneously and then transmitted to the frame prioritization circuit, Col. 2, Lines 31-Col. 3, Line 29, Col. 18, Lines 11-57), however Gallagher et al. fails to disclose spreading the one of the first data frame and the second data frame having the shortest duration output from the multiplexer with an orthogonal code for a dedicated control channel; and spreading an output of the orthogonal code spreader with a PN sequence.

In an analogous art, Pyhalammi et al. discloses short and long frames (short frames are prioritized for transmission over longer frames, Col. 4, Line 63- Col. 5, Line 65), which enables message size to be adaptive and to reduce bandwidth waste.

In an analogous art, Nagatani et al. discloses spreading the frame message output from the multiplexer with an orthogonal code for a dedicated control channel; and spreading an output of the orthogonal code spreader with a PN sequence (Fig. 23, Items 23, 23a and 23b, Col. 4, Lines 14-26), which enables standard modulation techniques in a spread spectrum communication system.

It would have been obvious to one having ordinary skill in the art at the time of invention was made to use short and long frames in order to allow data to be placed in a frame that is size appropriate thus allowing for the system to reduce waste in bandwidth.

It would also have been obvious to one having ordinary skill in the art at the time of invention was made to use PN code and orthogonal code in order to utilize standard modulation techniques in a spread spectrum communication system.

Allowable Subject Matter

Claims 38 and 47 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments with respect to claims 31-49 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to STEVEN LIM whose telephone number is (571)270-

1210. The examiner can normally be reached on Mon-Thurs 9:00am-4:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Lester Kincaid can be reached on (571)272-7922. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

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/Steven Lim/
Examiner, Art Unit 2617